REMARKS

This amendment is responsive to the Office Action dated June 18, 1998, the deadline for which has been extended for one month by petition. Claims 1-13 are pending in the present application. Claims 1, 5-8, and 10-13 have been amended. Claims 1-13 remain pending.

Applicant's Attorney thanks Examiner Harrington for the Interview on October 7, 1988. The amendments and remainder of the remarks incorporate the substance of the interview.

The specification has been amended to correct various informalities, and to cancel incorporation by references to non-essential information pursuant to MPEP 608.01(P). It is submitted no new matter has been introduced in the specification. Claims 7, 9-11, and 13 have been amended to more clearly recite subject matter of the invention. The claims have also been amended to recite "selecting" "stored images", rather than "highlighting" "image cells", and to make clear the group created from the marking function is "temporary".

The present invention is directed to a method and system for grouping a series of images stored in a digital camera that improves how images are manipulated in the digital camera. As stated in the Background of the Invention, prior to the present invention, conventional digital cameras restricted how captured images were manipulated by a user. For example, in order to display a series of images on the LCD of the camera, the user had to manually depress a button on the camera to trigger the display the first image, depress the button again to display the next image, and so on for the entire sequence of images. Manual intervention by the user was also necessary when performing other

operations on the captured images, such a deleting images from the digital camera. Forcing users to manually select individual images for each operation desired in this manner is cumbersome and tedious to the user.

The present invention overcomes this problem by providing a digital camera interface that includes a "mark" function for allowing a user mark a series of selected images to create a temporary group of images. After marking the selected images, the user may perform functions on the group, such as deleting the group, or transforming the temporary group into a permanent group of images. This is contrast to conventional digital cameras in which operations had to be performed on a single image at time.

In a preferred embodiment, the functions that can be applied to the group are provided using soft keys, which are programmable buttons that change function according to the state of the camera.

Claims 1-3, 6-11, and 13 were rejected under 35 U.S.C. 103(a) as being anticipated by Parulski et al. (US Patent 5,633,678) (hereinafter "Parulski") in view of Lee (US 5,635,984) further in view of Takeda et al. (US 6,682,207). The Examiner stated:

> Regarding claim 1, Parulski et al discloses an electronic camera which captures and assigns a tag (claimed "mark") to a plurality of images taken (column 2, lines 1-5). Once al the images are tagged (claimed "reeating step (a)"), the images are saved (claimed "one group function") to the storage (column 2, lines 58-65) ... Although Parulski et al.'s system uses a "pre-capture tag system" for saving images, it would have been obvious to use a "post-captured tag" system, since it is known in the art to use such a system.

Applicant respectfully disagrees. In contrast to the present invention, Parulski discloses an electronic still camera that provides the user with the ability

to categorize still digital images according to subject matter before capturing the images (Col. 2, lines 32-36). Parulski teaches "tagging images" both pre- and post-capture, but both cameras taught by Parulski are designed to be used with a host computer. Parulski's post-capture tagging system is described as:

> "[A] digital camera tethered by a cable to a separate digital storage unit ... similar to the *computer* 4 of FIG. 1contained a keyboard for manipulating the images ... the system included a 'tag' feature that allowed a user to flag selected images for later display or uploading. (Col. 1 line 65+)

> Both cameras allowed a simple division of already-captured into "tagged" and "not tagged" images and *required a pattern of keystrokes* subsequent to capture for every image of interest handling. (Col. 2, lines 17-20) (Emphasis added)

Parulski's post-capture tagging system is described as:

> [A] digital camera includes a display-based 'tag' icon/feature which the user can set to an appropriate category before taking a group of pictures. When the user selects a particular category, the category name is stored along with the image data in the image file ... When downloading the images to a *host computer*, the user can select a category to download and the images can be stored in folders labeled with each category name (Col 2, lines 51-65).

In contrast, the claims of the present invention are directed to group manipulation of images on a *digital camera*, rather than a computer. For this reason, it is respectfully submitted that Parulski would fail to render the present invention obvious. The problem faced by the inventor in the present application was how to enable a non computer-literate user of a digital camera a way to manipulate images as group, rather than one at a time, on a device lacking standard user interface tools, such as a keyboard. Examples of such group manipulation include deleting each image in the group, saving each image in the either into the same directory, or in the same file to create a slide show, duplicate

each image in group, or view each image in the group based on some criteria, such as date and time.

It is respectfully submitted that Parulski teaches away from providing such complex group image manipulation on a digital camera by expressly stating "the tagging feature functioned more as a "post-capture data gatekeeper" than as a useful tool for image handling. *Anything more complex in the way of data organization requires* ... the use of a special application program in *the host computer* to organize and sort the image data (Col. 2, lines 20-25) (emphasis added).

It is submitted that marking individual images and performing an operation on the group without user intervention is more complex than categorizing the images. Thus, Parulski teaches that such group manipulation would require a host computer. Parulski's teaching away from the present invention is evident from the fact that Parulski fails to teach or suggest "providing the digital camera with "one or more function keys", and "assigning a mark function to one of the function keys...and assigning at least one group function to one of the function keys", as recited in the independent claims 1, 8 and 13. Rather, as stated previously, Parulski teaches that such a combination of features could not be done on the camera itself, but would require a host computer.

Moreover, even if Parulski's categorization were implemented without the use of a host computer, Parulski's categorization would still fail to teach or suggest the marking capability of the present invention due to differences between categorization and marking.

One difference is that Parulski's category information are stored permanently with the image data. In the present invention, by contrast, repeatedly marking images creates a "temporary group of marked images". No record that an image has been marked is kept with the image, thus reducing storage requirements.

Another difference between Parulski's categorization and marking is that categories inherently relate images by subject matter. This is a too restrictive approach for performing group manipulation functions because a user may want to perform a function on a group of images that have no relation what so ever. For example, a user may want to delete, save, or play the group of disparate images. Marking provides such functionality, while subject-based categorization does not.

The difference between marking and categorization can best be illustrated by the following example. In the future, digital cameras will be equipped with mass storage devices capable of storing hundreds or thousands of images. With that many images, users may use Parulski's invention to place the images into many different categories for quick searching capability. Now assume the use would like to display or delete all the images from 20 of the different categories. Using prior art techniques, the user would have to select the first category and press delete, select the second category and press delete, and so on 18 more times. The claims of the present invention solve the problem directly. The user would select each category and press the "mark" key to create a temporary group of categories, and then press the delete key to delete the group.
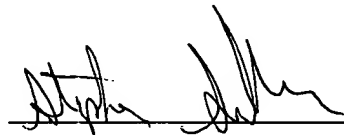
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Thus, Parulski in combination with the other references would still suffer the drawback that the present invention eliminates; creating a temporary group of images in a digital camera for collective manipulation by the user.

In view of the foregoing, it is submitted that independent claims 1, 8 and 13 are allowable over the cited references. Because the secondary references stand or fall with the primary references, claims 2-7 and 9-12 are allowable because they are dependent upon the allowable independent claims. Accordingly, Applicant respectfully requests reconsideration and passage to issue of claims 1-13 as now presented.

Applicants' attorney believes that this Application is in condition for allowance. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted,

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